

# **PUBLIC WORKS AND ENVIRONMENTAL QUALITY**

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## **DEPARTMENT OF PUBLIC WORKS**

### **ADMINISTRATION**

The Department of Public Works (DPW) is made up of several working divisions: Administration, Engineering, Highway/Water/Sewer, Properties, and Natural Resources. With a staffing strength of 128 full-time personnel, it is the goal of the department to provide citizens, boards, commissions, and other town departments with superior service and support through the consistently managed efforts of the department.

In addition to the projects and achievements outlined under each Public Works Division in this report, the following initiatives were further developed in 2005:

- The Summer Street Reconstruction Project continued in 2005. When this \$4.3 million state project is complete Summer Street will have been completely reconstructed from the Lexington line to Hospital Road. Once this long anticipated project is completed, the town will take over the ownership of the street from the state and consequently the town will be responsible for the maintenance and upkeep of the street in the future.
- In March, the department took over the responsibility for opening and closing playing fields. Information is available to the public from March through October on the town website as well as a cancellation call in line and an extensive email distribution list to interested parties.
- In September the department began the consolidation of its operations to the DPW operations center at Grove Street. Administrative staff moved to the facility and in the fall of 2006 the rest of the administrative staff will move to the facility after it has been renovated. This consolidation will allow the department to provide better service to the community.
- In the fall, the Reservoir Dam Project was nearly complete. The reservoir dam is a 1,600-foot long by 12-foot high earth embankment built in the 1870's. The area is used for flood control in addition to active and passive recreation. The innovative rehabilitation design employed by our consultant, Weston and Sampson, earned this project an Engineering Excellence Gold Award at the American Council of Engineering Companies of Massachusetts. In addition, the project also received an American Public Works Association's Public Works Projects of the Year award. The new approach saved hundreds of trees while making the dam safe for future generations. Input from the

community including the Arlington Reservoir Committee in particular lead to a highly successful project.

- In late October, the department held its annual snow school for all department employees involved in the snow and ice operation. This training session covers the latest procedures, techniques, and materials available that the department will use to keep Arlington residents safe during the coming winter months. The snow school is not the start of the preparation process as repair and preparation of the equipment needed for the coming winter starts in the spring. The snow and ice operation is truly a year round operation.

### **ENGINEERING DIVISION**

The Engineering Division of the Department of Public Works continues in its capacity as a service-oriented division, supplying support services to various Town departments, commissions, contractors, public utilities, and the general public. As a part of the Department of Public Works, the Engineering Division works closely with the Highway, Water, and Sewer Division upgrading and improving the infrastructure of the Town by providing surveys, engineering design, construction plans, field layouts, and field inspection services.

Major initiatives in 2005:

- Replacement of more than 33,000 linear feet of sidewalk, 10,328 linear feet of granite curb on twenty-three water rehabilitation streets. Paving of a finish course of these streets amounting to 11,565 tons of asphalt. Following this phase, milling and surfacing of 1,500 linear feet on Broadway. Also included were Old Spring Street and George Street.
- Assisted and advised other departments with issues such as traffic counts, handicap ramps, and crosswalks.
- The development of Massachusetts Avenue Condominiums was completed with the input of the Engineering Division on the design of the utility system.
- Contract development and oversight of the construction of twenty-two handicap ramps (\$100,000 of CDBG money).
- Contract development and oversight of the construction of curb and walk betterments (\$32,000), Dallin School.
- Paving included one private way, Churchill Avenue, for which the Engineering Division calculated costs and helped with layouts of the roadway amounting to 800 tons of asphalt.

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- Assisted with the Summer Street project. This included drainage, sewer and water information, advice, and attending meetings.
- The new phase of Water Rehabilitation (10,000 linear feet), consisting of Franklin Street, Hamlet Street, Jean Road, Lewis Avenue, Alton Street, Allen Street, Wyman Terrace, Palmer Street, Philips Street, Webster Street, and Coral Street was completed in the fall.
- Provided support for the crack seal treatment program on thirty streets in August.
- The division was involved with site planning and utility design of the new leaching catch basins in the Concord Turnpike area. The project was completed in 2005 involving the Arlington and Belmont Planning Departments. The construction contract was awarded in the fall and will begin in the spring of 2006.
- Provided support to the Transportation Advisory Committee for the purpose of solving traffic problems in the town. These support services include data collection, traffic counts, and geometric design improvements to intersections that included Downing Square and Cedar Avenue at Park Avenue. Both projects were implemented in 2005 on a temporary basis.
- The Arlington High School and Town Yard Remediation project started in 2004. This involved the removal of contaminated soils and creating a clean corridor for utilities. This project was continued through 2005.

### **HIGHWAY/WATER/SEWER DIVISION**

The Highway/Water/Sewer Division of the Public Works Department shares in much of the credit for the accomplishments initiated, designed, and planned by the Engineering Division. In addition to performing many of the infrastructure improvements, these sections are responsible for responding to emergency calls on the water, sewer, and drainage systems. Maintenance of these systems is a major responsibility as well. The division also maintains streets, sidewalks, bridges, and any structures in the right-of-way. Services provided in 2005 were snow and ice removal, street sweeping, catch basin cleaning, water and sewer customer service calls, maintenance of town vehicles and equipment, and overseeing solid waste and recycling collection. Specific programs such as Investigations of Claims, Maintaining the Fuel Station, and Grease Eradication are but a few of the dozens of programs for which the division is responsible.

### **Highway/Water/Sewer Division Performance Measurements for 2005**

- Striping of centerlines and crosswalks throughout the town, using the international layout for crosswalks was accomplished.
- Installed new catch basin frames and covers.
- Continued cleaning Mill Brook at the Grove Street facility to help prevent flooding on a weekly or daily basis, depending on weather.
- Installed new cement concrete and bituminous concrete sidewalks throughout various sections of town.
- Cleaned over 3,500 catch basins on town streets with in-house personnel.
- Cleaned and repaired 10 sewer mains and pump chambers.
- Worked with Fire Services to perform annual fire hydrant inspections.
- Repaired frost heaves from April until October.
- Maintained a fleet of over 300 motor vehicles and equipment.
- Street sweeping of all sections of the town from April to November.
- Managed 18,000 tons of solid waste disposal, 4,700 tons of recycling, and 3,300 tons of yard waste disposal.
- Collected 2,119 CRTs from televisions or computer monitors.
- Collected 2,348 white goods (washers, dryers, etc.).

### **PROPERTIES DIVISION**

The mission of the Properties Division is to provide the Town of Arlington with a high degree of quality service in custodial services, maintenance, and improvements to its public buildings and facilities. The division is responsible for the maintenance of thirty-one public buildings, including Town Hall, all public schools, Jarvis House, Robbins Library, Whittemore-Robbins House, Grove Street complex, and the Fox Library.

A sampling of the kinds of projects completed and/or managed by this division in 2005 is listed below:

#### **Stratton School**

- Completed annual flush-down and cleanout of two boilers
- Repaired plumbing and fixture problems throughout building
- Replaced steam traps throughout building (ongoing)
- Checked all rooftop exhaust fans for operating condition
- Replaced two drinking fountains

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- Repaired/replaced thermostats (rooms overheating) as required
- Repaired roof fan above gymnasium
- Completed annual air compressor inspection
- Installed three-sink module in kitchen area
- Repaired loading dock lighting
- Completed carpentry projects (repaired miscellaneous area bathroom partitions, doorlock/doorcloser hardware, replaced broken glass, replaced towel and tissue holders, soap dispensers etc.)
- Repaired miscellaneous roof leaks (ongoing)
- Replaced Lexan with glass (85 windows)
- Removed graffiti from school chimney

### *Brackett School*

- Repaired miscellaneous plumbing and fixture problems throughout building (i.e. broken/leaking pipes, faucet leaks, clogged toilets, drains, repaired flush meters, univents, boilers, thermostats, steam issues etc.)
- Repaired plumbing leaks
- Replaced eight heating control valves throughout school
- Replaced lighting ballasts in several areas
- Repaired intercom
- Completed carpentry projects (repaired miscellaneous area bathroom partitions, doorlock/doorcloser hardware, replaced broken glass, replaced towel and tissue holders, soap dispensers etc.)
- Repaired roof leaks (ongoing)
- Installed plaques on bleachers
- Adjusted furniture in kindergarten area (accreditation)
- Adjust/repair/replace door hardware in several areas
- Waterproofed outside gymnasium wall
- Repaired playground perimeter fence
- Replaced stair treads in several areas

### *Arlington High School*

- Completed annual flush-down and cleanout of boilers
- Completed annual blow-out/livening of lawn sprinkler lines
- Repaired miscellaneous plumbing and fixture problems throughout building (i.e. broken/leaking pipes, faucet leaks, clogged toilets, drains, repaired flush meters, univents, boilers, thermostats, steam issues etc.)
- Repaired steam leaks throughout building
- Removed asbestos from boilers 2 and 3 in B-building
- Completed annual inspection of cafeteria fire suppression equipment

- Completed periodic fire sprinkler inspection
- Completed annual decontamination of kitchen equipment
- Repaired/replaced water drinking fountains throughout school
- Replaced lighting ballasts throughout school
- Completed periodic inspection of emergency light unit (i.e. batteries, bulbs)
- Repaired emergency roof top generator
- Repaired/replaced parking area lighting fixtures
- Repaired/replaced building exterior and courtyard lighting
- Installed speaker system in committee room
- Completed carpentry projects (repaired miscellaneous area bathroom partitions, doorlock/doorcloser hardware, replaced broken glass, replaced towel and tissue holders, soap dispensers etc.)
- Repaired and rebuilt graduation platform
- Repaired cement walkway/steps in front of building and courtyard
- Replaced miscellaneous paper towel holders, soap dispensers
- Replaced stair treads in predetermined areas within the school
- Installed fire rated glass on several interior doors
- Distributed food commodities to other schools
- Repaired front doors
- Transported musical instruments to other schools periodically
- Completed various repairs to boys locker room doors
- Built frame for art mural
- Repaired roof leaks throughout building (ongoing)
- Installed SADD signs at school entranceway
- Replaced stair treads on predetermined stairways
- Replaced damaged ceiling tiles throughout building
- Cleared gutters on clock tower
- Repaired lockers throughout building
- Completed general carpentry repairs in Menotomy preschool
- Assisted athletic instructor in assembling of sports items
- Repaired cafeteria tables/chairs
- Delivered and filled sand/salt barrels to all schools
- Extensive glass replacement (replaced faded lexan with glass)
- Replace crash bars in hallway doors with pulls and push plates
- Repaired wall damage due to vandalism

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### *Ottoson Junior High*

- Repaired miscellaneous plumbing and fixture problems throughout building (i.e. broken/leaking pipes, faucet leaks, clogged toilets, drains, repaired flush meters, univents, boilers, thermostats, steam issues etc.)
- Completed annual decontamination of kitchen equipment
- Completed annual inspection of cafeteria fire suppression equipment
- Repaired roof leaks and cleared roof drains
- Installed electrical circuitry and additional lighting in library/café
- Repaired/replaced exterior building lighting as required
- Completed carpentry projects (repaired miscellaneous area bathroom partitions, door lock/door closer hardware, replaced broken glass, replaced towel and tissue holders, soap dispensers etc.)
- Replaced water damaged ceiling tiles as required

### *Thompson School*

- Completed annual flush down and cleanout of two boilers
- Completed annual blow-out/livening of lawn sprinkler lines
- Repaired plumbing and fixture problems throughout building (i.e. broken/leaking pipes, faucet leaks, clogged toilets, drains, repaired flush meters, univents, boilers, thermostats, steam issues etc.)
- Replaced lighting ballasts as required
- Completed carpentry projects (repaired miscellaneous area bathroom partitions, doorlock/doorcloser hardware, replaced broken glass, repaired nurses door, replaced towel and tissue holders, etc.)
- Repaired roof leaks (ongoing)
- Painted several bathrooms
- Removed graffiti from building exterior
- Replaced broken door/window glass as required
- Replaced Lexan panes with glass in 125 windows

### *Peirce School*

- Repaired plumbing and fixture problems through building (i.e. broken/leaking pipes, faucet leaks, clogged drains, flushometers, univents, boilers, thermostats, heating issues etc.)
- Completed annual inspection of exhaust fire suppression in kitchen
- Replaced lighting ballasts as required

- Replaced parking area lights as required
- Completed carpentry projects (repaired miscellaneous area bathroom partitions, doorlock/doorcloser hardware, replaced broken glass, replaced towel and tissue holders, etc.)
- Removed graffiti from building exterior
- Repaired roof leaks throughout building (ongoing)
- Replaced water damaged ceiling tiles as required

### *Hardy School*

- Completed annual inspection of kitchen exhaust fire suppression equipment
- Completed annual decontamination of kitchen equipment
- Repaired plumbing and fixture problems through building (i.e. broken/leaking pipes, faucet leaks, clogged drains, flushometers, univents, boilers, thermostats, heating issues etc.)
- Completed annual inspection of fire sprinkler system
- Replaced lighting ballasts as required
- Replaced parking area lights as required
- Completed carpentry projects (repaired miscellaneous area bathroom partitions, doorlock/doorcloser hardware, replaced broken glass, replaced towel and tissue holders, etc.)
- Repaired roof leaks and cleared roof drains
- Removed rebar from concrete parking bumpers
- Replaced water damaged ceiling tile as required

### *Bishop School*

- Completed annual inspection of fire sprinkler system
- Completed annual inspection of kitchen exhaust fire suppression equipment
- Completed annual decontamination of kitchen equipment
- Repaired plumbing and fixture problems through building (i.e. broken/leaking pipes, faucet/toilet leaks, clogged drains, flushometers, univents, boilers, thermostats, heating issues etc.)
- Replaced lighting ballasts as required
- Repaired roof leaks and cleared roof drains (current)
- Replaced parking area lights
- Repaired handicap lift
- Completed carpentry projects (repaired miscellaneous area bathroom partitions, door lock/door closer hardware, replaced broken

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glass, replaced towel and tissue holders, hang plaques etc.)

- Assembled/installed outdoor picnic table

### *Robbins Library*

- Repaired plumbing and fixture problems through building (i.e. broken/leaking pipes, faucet/toilet leaks, clogged drains, flushometers, univents, boilers, thermostats, heating issues etc.)
- Replaced outside lights as required
- Repaired front steps
- Completed painting of exterior window trim
- Repaired slate roof (ongoing as required)
- Completed carpentry projects (repaired miscellaneous area bathroom partitions, doorlock/doorcloser hardware, replaced broken glass, replaced towel and tissue holders, hang plaques etc.)
- Replaced lighting ballasts as required
- Resolved elevator repair issues
- Installed additional lighting fixtures in lower level reading room

### *Robbins Cottage*

- Replaced water heater

### *Fox Library*

- Installed new roof
- Repaired plumbing and fixture problems through building (i.e. broken/leaking pipes, faucet/toilet leaks, clogged drains, flushometers, boilers, thermostats, heating issues etc.)
- Installed dehumidifier and drain line in lower level storage area
- Repaired "outside book drop" box
- Cleared ivy and debris from rear exit

### *Crosby School*

- Completed annual flush down and cleanout of two boilers
- Replaced section of steam piping in basement
- Installed valve in main water line
- Disposed of old staging

### *Parmenter School*

- Completed annual flush down and cleanout of two boilers
- Completed annual fountain blow-down/livening
- Repaired miscellaneous plumbing and fixture problems through building (i.e. broken/leaking pipes, faucet/toilet leaks, clogged drains, flushometers, univents, boilers, thermostats, heating issues etc.)

### *Gibbs School*

- Completed annual flush down and cleanout of two boilers
- Repaired plumbing and fixture problems through building (i.e. broken/leaking pipes, faucet/toilet leaks, clogged drains, flushometers, univents, boilers, thermostats, heating issues etc.)
- Replaced lighting ballasts as required

### *Central School*

- Repaired plumbing and fixture problems through building (i.e. broken/leaking pipes, faucet leaks, clogged drains, flushometers, boilers, heating issues etc.)
- Completed annual flush down and cleanout of two boilers
- Replaced lamp ballasts upon request

### *Jefferson Cutter House*

- Repaired broken water pipe in kitchen
- Replaced lights and ballast as required

### *Town Hall*

- Completed annual flush down and cleanout of two boilers
- Repaired plumbing and fixture problems through building (i.e. broken/leaking pipes, faucet/toilet leaks, flushometers, boilers, thermostats, heating issues etc.)
- Completed annual opening/closing of "reflecting pool" and "fountains"
- Replaced front entranceway electric door activator mats
- Repaired lights at main entrance.
- Replaced ceiling lights in main hall
- Completed carpentry projects (repaired miscellaneous area bathroom partitions, doorlock/doorcloser hardware, replaced broken glass, replaced towel and tissue holders, hang plaques etc.)
- Repaired roof leaks (ongoing)
- Refinished front doors

### *DPW Yard*

- Replaced roof on O'Hara building
- Repaired plumbing and fixture problems through building (i.e. broken/leaking pipes, faucet/toilet leaks, clogged drains, flushometers, univents, boilers, thermostats, heating issues etc.)
- Installed new drinking water fountain in dispatch wing
- Replaced damaged unit heater in snow fighters garage

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- Installed new 15 ton rooftop a.c. unit on O'Hara building
- Installed two air conditioning units on 1st floor of dispatch building
- Installed waste oil furnace in "snow fighter" garage
- Completed carpentry projects (repaired miscellaneous area bathroom partitions, doorlock/doorcloser hardware, replaced broken glass, replaced towel and tissue holders, hang plaques etc.)
- Replaced large salt shed "north face", small shed "east face"
- Replaced and installed 26 automatic doors garage buildings
- Completed build-out of engineers new office
- Patched/painted entire 2nd floor in engineer's building

### *Mount Pleasant Cemetery*

- Completed annual flush down and cleanout of oil furnace
- Replaced three garage doors
- Repaired oil furnace

### *Community Safety*

- Repaired plumbing and fixture problems through building (i.e. broken/leaking pipes, faucet/toilet leaks, flushometers, boilers, thermostats, heating issues etc.)
- Replaced lamps and ballasts as required
- Repaired roof leaks (ongoing)
- Replaced glass in front door

### *Fire Stations*

- Park Circle - Installed additional electrical circuits in kitchen area
- Central - Replaced lamps as required
- Highland - Repaired shower valves

### *Jarvis House*

- Replaced roof
- Repaired plumbing issues as required
- Secured hand railing on front steps

### *Mount Gilboa*

- Removed/disposed of items left by tenant
- Repaired steam pipe in basement
- RegROUTED bathroom tile and installed new toilet
- Installed lighting circuit in kitchen
- Removed lead paint from both the interior and exterior
- Repaired and pressure washed front steps
- Skim coated kitchen ceiling
- Painted kitchen

- Installed lattice on 2nd floor deck

### *Recreation Department*

- Reservoir Beach - opened/closed for season
- Spy Pond Club House - opened/closed for season

## **NATURAL RESOURCES DIVISION**

The Natural Resources Division consists of the Forestry, Park, and Cemetery Sections and is responsible for the proper management, care, and maintenance of the Town of Arlington's 18,000 public trees, open space facilities, playgrounds, and athletic field infrastructure. The division manages and operates Mount Pleasant Cemetery, maintains 19 athletic fields, 25 playgrounds, and all open space facilities, including the Reservoir Beach facility, North Union Spray Pool, Menotomy Rocks Park, Town Hall Gardens, the Donald R. Marquis/Minuteman Trail, Broadway Plaza, and Robbins House gardens.

### **Forestry**

The Tree Division removed 176 diseased, storm damaged, or root damaged trees. There were 150 tree plantings during the year. The division responded to 486 calls for service.

During the year, the division maintains the Minuteman Trail that runs from the Cambridge line to the Lexington line. The division also is responsible for the execution of the holiday lights program. The division cleans and maintains traffic islands around town. On Massachusetts Avenue the division takes care of the American flags and the banners. Staff of the division maintains the extensive grounds between the Town Hall and the Robbins Memorial Library.

### **Park Maintenance**

The ever-increasing number of athletic programs is causing very serious maintenance problems for the division. From mid-March through November, all athletic fields are under extreme duress. It is nearly impossible to maintain grass and other surfaces under these conditions.

The maintenance of 19 athletic fields, 25 playgrounds, the Reservoir Beach facility, North Union Spray Pool, Town Hall Gardens, Robbins House Area, The Olde Burial Grounds on Pleasant Street, and the Donald R. Marquis/Minuteman Trail upkeep are taxing the division's ability to maintain high standards.

The division undertook the following field renovation projects in 2005:

- Summer Street Field – 1 pallet of sod, ¼ of a ton of loam, 1 bag starter fertilizer
- Buck Field – 2 yards of loam, 20 pounds of grass seed, 1 bag of starter fertilizer. The height of the infield was raised by 2 inches using infield mix.

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- Scannell Field – 2 yards of loam, 20 pounds of grass seed, 1 bag of starter fertilizer. The height of the infield was raised by 2 inches using infield mix.

### **Cemetery**

Mount Pleasant Cemetery is very rapidly being used up and planning for future interments is now a major priority.

#### **Revenues at Mount Pleasant Cemetery 2005**

Sale of single graves	\$71,500
Perpetual Care	\$14,700
Openings, foundation, Saturday, holiday charges	<u>\$250,550</u>

<b>TOTAL REVENUES</b>	<u><b>\$336,750</b></u>
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Total Interments	217
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Total Cremains	58
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New Graves	54
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